Review of Major
Integrated Energy Policy Report Recommendations

In general, I find that the *2004 Integrated Energy Policy Report Update* (or Energy Report), inclusive of the *2003 Energy Report*, is consistent with my views on energy policy, except as noted otherwise. My positive comments on the Energy Report's recommendations below typically add emphasis, a sense of priority and suggestions for furthering, accelerating or modifying them, taking into account recent progress, existing policy and my own energy goals, policies and priorities.

The energy reorganization plan I proposed on May 12, 2005, is consistent with, and flowed from the development of, the following comments on the Energy Report. These comments are applicable to the future direction of energy policy and policy implementation regardless of whether my reorganization plan is implemented exactly as proposed. The California Energy Commission (Energy Commission), whether in its role as an energy agency or as a department with cabinet-level responsibilities, will have the same statutory and adjudicatory responsibilities it has today, and in addition will receive further direction and authority, as proposed in my reorganization plan and Energy Report comments. As such, my instructions and recommended additional authorities to *the Energy Commission* should be understood to apply to *the Energy Commission or its successor*.

Electricity

I agree that the state needs to ensure the adequacy of electricity supplies:

- *Incorporate the forecasts, resource assessments, and policy preferences of the Energy Report into an explicit resource adequacy requirement for all retail electricity suppliers to guide resource procurement*[*]. The California Public Utilities Commission (CPUC) has already indicated in its recent rulings and decisions that the products of the Energy Commission's Energy Report will be used to guide long-term resource procurement in CPUC proceedings. Both agencies are to be commended for this effort.

  In executing this role, the Energy Commission must accept that it has a new obligation not just to publish a report, but to help translate the Energy Report's recommendations into meaningful and operational guidance for affected agencies. In addition to specific guidance included within the Energy Reports, this may require supplementary reports, filings, testimony or other technical assistance. For example, the forecasts of

[*] Comments in Italics are taken directly from the California Energy Commissions 2003-2004 IEPR report and update.

electricity demand and supply in the Energy Report should be at such a disaggregated level and compiled in such a way that both the CPUC and California Independent System Operator (CA ISO) can readily use them.

The CPUC, the CA ISO and the Energy Commission should continue to work together to include deliverability standards in resource adequacy requirements – just identifying power elsewhere is not sufficient if it cannot be reliably delivered. The agencies should also increase their vigilance in monitoring the electricity system to detect potential problems before they happen and to plan for a system that is adequate to meet current and future needs.

- *The CPUC should also support the pending petition to allow the utilities to enter into one- to five-year power purchase contracts, as long as they do not replace the long-term procurement necessary to construct new power plants already licensed.* The CPUC now allows investor owned utilities to enter into short (less than one year), intermediate (one- to five-year) and long-term (longer than five-year) contracts, with contract delivery start dates through 2014. Generation projects, including merchant plants that have received licensing approval and are expected to be on line should be allowed to participate in utility bid processes for these contracts.

- *The CPUC, the investor owned utilities (IOUs), and municipal utilities should consider allowing cold standby plants to contribute to reserve margins, providing insurance against low hydro conditions and system contingencies such as the extended outage of nuclear plants or transmission lines.* The State should consider all options to provide adequate reserves. Although whether to shut down a power plant is a business decision, it may be cost-beneficial for the State to encourage some power plants to more slowly phase out operations, especially if supply-demand balances warrant. It is possible that some plants already have contracts that achieve similar protection, but the Energy Commission should report on the status of this potential resource in its Energy Reports.

- *The Energy Commission, CPUC, and all utilities should take steps to enhance California's supply management by: establishing more closely coordinated planning and reserve sharing among California's IOUs and municipal utility service areas, allowing greater sharing of generating resources; pursuing all cost-effective seasonal energy exchanges with the Pacific Northwest to satisfy California's summer peak demand, including needed transmission upgrades to take advantage of seasonal generation surpluses; and exploring opportunities to use existing pumped-storage facilities more fully, which provide both a more stable base load for existing power plants and valuable peaking power generation during high demand.* In agreeing with the basic thrust of this set of recommendations, I caution that the State be realistic about its ability to rely upon seasonal

electricity exchanges. The State should not design a system that has an over-reliance on exchangeable energy for reliability or least cost purposes.

Improve electricity efficiency and demand response

- *Ramp up public funding for cost-effective energy efficiency programs above current levels*. The 2004 Energy Report Update "report card" notes that IOUs have exceeded the original peak and energy savings goals set out in the 2003 Energy Report. The CPUC and Energy Commission should regularly evaluate the energy efficiency goals and funding levels to ensure that efficiency maintains its preeminent place in preferred energy resource additions.

- *All investor-owned and municipal utilities should work aggressively to implement demand response programs to attain the 2007 statewide goal of reducing peak demand by 5 percent. The CPUC should require dynamic pricing tariffs for large electricity customers who already have advanced metering capability.* Peak demand reduction is an important component of California's energy efficiency goals. I support the 2007 statewide goal. Dynamic pricing tariffs should be made available for all customers. Other programs also should be pursued for additional demand response.

- *The CPUC should also begin implementing a large-scale rollout of advanced metering systems for smaller customers, targeted first to areas of the state with the highest peak demand. Dynamic rate offerings and load control options should then be developed for customers as the metering systems become operational.* I have made a policy commitment to advanced meters and dynamic tariffs. CPUC pilot tests show that advanced meters, when combined with effective dynamic pricing tariffs, are favorable to the customer and effectively decrease peak electricity use.

  In March 2005, the three IOUs filed applications with the CPUC to initiate deployment of advanced meters for residential and commercial customers. The initiatives by Pacific Gas & Electric (PG&E) and San Diego Gas & Electric (SDG&E) to deploy the meters to all customers over a multi-year period appear to be compatible with the Energy Report's recommendation. The CPUC should proceed with the SDG&E and PG&E applications, improving them as appropriate, and have Southern California Edison (SCE) accelerate its effort to deploy the meters in a similar time frame. The utilities need to get the hardware, tariffs and programs in place to enhance California's demand response capability.

  The Energy Commission must begin to incorporate the impacts of these meters and tariffs on electricity demand in its forecasting methodology as

it prepares its demand forecasts and include the results in future Energy Reports.

- *Implement appropriate mandates, incentives, and funding to maximize the energy efficiency potential of existing buildings, using sustainable energy and environmental designs in all state buildings*. Executive Order S-20-04 requires this effort for State buildings, implementation of which will lead to an estimated $100 million per year in energy cost savings for the State.

- *The Energy Commission should work with the Department of Water Resources (DWR), the CPUC, the CA ISO, and other water agencies to investigate and pursue all cost-effective load management and demand response programs on these water systems.* I recognize that DWR has already improved the efficiency of combined water and energy activities, but I ask that it look at ways to further improve its electricity-related operations and present the results of its investigations in the 2005 Energy Report process.

- *Standardize and increase the evaluation and monitoring of energy efficiency programs to ensure that savings and benefits are being delivered.* I support this important recommendation, especially as energy efficiency as the preferred resource strategy for meeting future needs.

Improve the way electricity markets operate to attain overarching state goals

- *The Energy Commission should work with the CPUC and other parties to develop a capacity market to allow utilities and generators flexibility in meeting proposed resource adequacy requirements, including a capacity "tagging" mechanism and tradable capacity rights or obligations.* In an Assigned Commissioner Ruling in April, 2004 the CPUC provided guidance on the next steps for capacity market development, including an examination of how development of a capacity market could promote resource adequacy. In a joint conference on electricity infrastructure on June 2, 2005, the CPUC, Energy Commission, CA ISO and Federal Energy Regulatory Commission (FERC) agreed that development of such a market is needed. I support developing a capacity market in a phased fashion, which would provide flexibility for both utilities and generators in complying with the State's proposed resource adequacy requirements and deliverability standards while also addressing the CA ISO's market redesign issues.

- *Explore through a collaboration between the CPUC and the Energy Commission the implications of a core/noncore market structure for electricity.* The CPUC President has proposed a core/noncore regime, which the Energy Commission has supported. I support the concept of competitive customer choice and ask that rules be developed that could

serve as the basis for such a retail market, subject to the need to prevent cost shifting and stranding assets.

Diversify the Electricity System

I am committed to both a diverse fuel base and a clean air quality profile for California's electricity sector. To achieve increased diversity that will provide for a more secure power base and help address future electricity supply and price concerns, California needs a balanced portfolio of new clean and diverse resources. I support continued clean coal technology research and development towards zero emission operation so that we can economically achieve reduced emissions of pollutants such as SO2, SOX, NOX and mercury and develop methods for capturing and storing significant amounts of CO2, either as an integral part of the energy conversion process or in pairing with external CO2 sequestration.

It is not possible to predict which technologies will advance to commercial maturity most rapidly, so a variety of technology paths must be encouraged. Furthermore, given the diversity of regional electricity markets and the wide variation in regional coal properties, effective deployment of advanced coal power systems may entail the adoption of many different technologies, such as Integrated Gasification Combined Cycle (IGCC) and Supercritical Circulating Fluidized-Bed Combustion (SC CFBC), as well as technologies yet to be developed.

I ask the Energy Commission to work with the California Environmental Protection Agency (Cal EPA) and other agencies to evaluate the potential for California's access to such clean coal energy resources and report its initial findings with the goal of recommending a California clean coal policy in the 2005 Energy Report.

- *Use the following principles to help achieve a million solar systems: include both new and existing homes and businesses, link solar photovoltaic installations with price responsive tariffs and advanced metering, targeting deployment to climate zones with high peak demands, provide long-term declining incentives to promote a competitive market and raise the net metering cap to 5 percent of peak demand.* These are good implementation suggestions. Agricultural applications should be included in the mix of home and business applications of solar power that the State encourages; it is appropriate to examine adjusting the cap if doing so would not increase costs to electricity consumers.

- *The state should enact legislation to require all retail suppliers of electricity, including large publicly owned electric utilities, to meet the accelerated 20 percent eligible renewable goal by 2010 and a longer-term goal of 33 percent by 2020, using common definitions of eligible renewable energy. In addition, the state should enact legislation that*

allows the CPUC to require Southern California Edison (SCE) to purchase at least one percent of additional renewable energy per year between 2006 and 2020, reaching 25 percent by 2010, 30 percent by 2015, and 35 percent by 2020. I support this very achievable 2010 goal. It signals our willingness and intent within the State and to the other Western states that California is committed to energy diversity. The Energy Commission's Energy Reports should reflect progress on this and other energy diversity goals and identify not only barriers to implementation throughout the state, but solutions to surmounting those challenges.

In order to achieve a goal of 33 percent by 2020, the Energy Commission, in consultation with the CPUC, Cal EPA and other agencies, should evaluate this and other renewable resource goals beyond 2010 in light of cost-benefit and risk analysis to ensure that consumer costs will not be raised unnecessarily, that that renewable assets will be accommodated efficiently into electricity grid operations, and that a workable implementation path, which shows how and when additional resources should come on line, will be developed.

Achieving diversity is another goal in which deliverability is important. For example, one utility may be able to develop renewable energy in its service area but be unable to use all of its generation capacity because of transmission or other constraints. I encourage the Legislature to enable a tradable credit or other system to encourage development of the vast renewable resources available throughout the West.

- *To help meet renewables goals, California's older wind sites should be repowered to harness wind resources more efficiently and reduce bird deaths; the CPUC should also require IOUs to facilitate such repowerings in its pending effort to develop renegotiated Qualifying Facilities contracts.* Local permitting agencies for wind repowering projects should implement actions similar to those identified in the Energy Commission's recent study on wind energy and bird deaths.

- *Create a transparent electricity distribution system planning process that addresses the benefits of distributed generation, including cogeneration.* I agree. An important benefit of clean distributed generation for electricity systems is that it can occur right at load centers, reducing the need for further infrastructure additions. The CPUC should develop tariffs that encourage the installation of distributed generation and cogeneration systems.

- *Research CA ISO tariff modifications to better accommodate renewables.* Additional attention should be given to incentives for renewable resources and all agencies should work collaboratively to obtain appropriate tariff incentives for renewable resources.

Improve the transmission planning and permitting processes

- *Consolidate the permitting process for all new bulk electricity transmission lines within the Energy Commission, using the Energy Commission's power plant siting process as the model.* This is a bold proposal composed of two parts: consolidating the bulk transmission permitting process at the Energy Commission and modeling it on the Energy Commission's generation licensing process. I will comment on both parts.

  Transmission planning and generation planning should be closely linked, not only because they are both complements and potential substitutes for one another, but because other non-wires alternatives, such as energy efficiency, should be considered with them simultaneously in the development of an efficient, integrated and dynamic electricity system. The Energy Commission is to be commended for offering its siting expertise as one potential solution to cut through the tangled transmission planning and permitting processes. I agree that transmission and generation planning and permitting should be consolidated, preferably within a single organization. I believe that the best location, based upon an extensive examination of energy organization, functions, roles and responsibilities, must be closely linked with the electric generation facilities siting program within the Energy Commission.

  The proposal to use the Energy Commission's power plant licensing process as a model for transmission licensing has merit for a number of reasons. The best transmission licensing process should also encompass related generation planning aspects, environmental impact analyses, broad public input, consideration of multiple jurisdictional responsibilities, regulatory certainty, and decision maker involvement that ensures direct access by interested and affected parties. The Energy Commission's power plant siting process possesses these elements. In addition, the Energy Commission's licensing experience already includes transmission elements.

  Nevertheless, modeling a new transmission licensing process on the current generation process without allowing for differences between transmission resources and planning, generation and other resources and planning, and involvement by different jurisdictions, could invite disaster. For example, the Energy Commission's California Environmental Quality Act analyses for generation may be exemplary, but for transmission permitting purposes it may be insufficient if lines cross federal land, requiring a broader environmental impact analysis. The Energy Commission must make sure that a streamlined and more consolidated transmission licensing process is adaptable, flexible and is

designed with the active participation of a broad range of affected and interested parties, both within and outside of government.

- *The Energy Commission, pursuant to its new responsibility to develop a strategic transmission plan in its 2005 Energy Report proceeding, should establish a comprehensive statewide transmission planning process with the CPUC, CA ISO, other key state and federal agencies, local and regional planning agencies, investor owned and municipal utilities, generation owners and developers, stakeholders and interest groups, and the public [to] 1) assess statewide transmission needs for reliability and economic projects as well as transmission to support Renewables Portfolio Standard goals; 2) examine non-wires alternatives to transmission (demand response, energy efficiency, generation, etc.); 3) approve beneficial transmission infrastructure investments that can move into permitting; examine the right-of-way needs for future transmission projects, designate and conduct environmental reviews of needed corridors, and allow utilities to set aside or bank necessary land for longer periods of time; and assess transmission costs and benefits that recognize the 30-50 year useful life of transmission assets, incorporate methods (quantitative and qualitative) to assess the long-term strategic benefits of transmission, and use an appropriate social discount rate.*

  I support the concept of a streamlined, open, and fair transmission licensing process. That is a major reason why my reorganization plan proposes that the Energy Commission add the licensing responsibility for all bulk electricity transmission facilities to its well-respected licensing responsibility for generation resources.

  An effective transmission planning process should be at the bedrock of the state government's commitment to upgrading and expanding California's transmission infrastructure to promote competition, access low cost resources, increase reliability, meet renewable resource goals and assure resource adequacy. Convincingly identifying transmission investment needs early in the planning process should help speed up and provide regulatory certainty in the permitting process for conforming projects.

  The State must find a way to realize the long term benefits of transmission, as these assets contribute to the state's economic growth and development. Transmission assets have such long lives, as do power plants and efficiency measures resulting from building standards, that the State should have a means of evaluating the strategic benefits and the benefit and cost streams of proposed transmission projects over multiple decades, as we have for power plants and efficiency measures. The Energy Commission should develop a range of recommended discount rates for transmission lines, compare them to other discount rates used for energy projects and report its recommendations in its 2005

Energy Report. Government should be consistent when evaluating energy capital projects.

Under its legislative mandate, Public Resources Code section 25324, the Energy Commission has initiated a transmission corridor planning process to develop and adopt a strategic plan for expansion of the state's electricity grid. As part of that process the Energy Commission will identify and evaluate potential transmission corridors to accommodate future siting and construction of needed transmission lines. To ensure that the identified corridors will be available when needed, the Energy Commission should have the authority to designate and preserve them.

The Energy Commission's planning and licensing work also should reflect the particularly important role of transmission in the western region. I have participated in the Western Governors' Association's efforts to improve the ways the states work together to resolve energy issues. I recognize and support the need for broader regional planning, and have asked the Energy Commission to recommend means to broaden California's participation in these efforts.

- *California should also re-examine the link between the CA ISO transmission expansion process and local area reliability assessment to stimulate adequate investment in a more robust transmission system, allowing California to more rapidly transition away from dependence on reliability must-run (RMR) contracts.* I support obtaining locationally important resources through utility procurement and other processes. However, RMR contracts offer certain advantages: they can help maintain local reliability and they can be useful in mitigating market power. For example, some RMR contracts contain terms that are remedial for past exercises of market power. Great care must be taken to ensure that RMR contracts are not abandoned unless, or until, the benefits they convey are replaced by equally effective alternatives.

Natural Gas

In the area of natural gas I support:

- *Increased funding for natural gas efficiency programs to achieve an additional 100 million therms of reduction in natural gas demand by 2013.* In September 2004, the CPUC, working with the Energy Commission and others, exceeded this goal. It adopted cost-effective efficiency programs for customers of IOUs that will provide a reduction of 444 million therms in natural gas demand by 2013.

- *Encouraging the construction of liquefied natural gas facilities and infrastructure and permit reviews coordinated with all entities to facilitate their development on the West Coast.* With conventional supplies of

North American natural gas at or nearing peak production capability, new supplies would be welcome to help meet continuously growing demand and keep prices affordable. California faces competition for energy resources not only in North America, but worldwide. In future Energy Reports, the Energy Commission should provide ongoing assessments of global natural gas markets.

As liquefied natural gas (LNG) issues cut across many areas of responsibility and jurisdictions, I would like to see a continuation of State-sponsored workshops that address these issues and consider under what conditions LNG would be a beneficial addition to conventional supplies in California. The approach by state and federal agencies must ensure that siting and permitting of LNG facilities are coordinated and conducted efficiently, including meeting the necessary economics, safety and environmental requirements.

- *Use existing natural gas storage capacity to provide adequate supplies and protect prices.* This recommendation was made at a time when natural gas storage capacity was being underutilized. Since that time, both private and utility reserves have been well utilized. It is a good recommendation to keep.

- *Conduct legislative hearings to examine the issue of gas quality and gas gathering as it relates to California gas production and determine whether additional legislative action would help resolve the issues.* The Energy Commission, CPUC, California Air Resources Board (CARB) and Department Conservation, Division of Oil, Gas and Geothermal Resources held a workshop on natural gas quality in February 2005 to investigate the technical and policy issues and possible legislative and administrative actions that could help resolve them. The CPUC, in a separate proceeding, set conditions that will allow additional price competition for gas coming into California.

Transportation Fuels

For transportation fuels, I agree that the state should improve vehicle efficiency and diversify fuels:

- *Build a coalition with other states and stakeholders to influence Congress and the U.S. Department of Transportation to double the combined fuel economy of new passenger cars and light trucks by 2020. If the federal government fails to revise corporate average fuel economy standards, California must reassess its petroleum reduction strategy.*

  Gasoline prices already strain our budgets. We must take advantage of every alternative fuel, technology and opportunity to reduce gasoline and diesel use. Though there are hundreds of thousands of flexible fuel

vehicles on California's roads today, very few use anything but gasoline and many of their drivers are not even aware that their cars and trucks do not have to use gasoline. Part of our new strategy should consider the development of alternate fuel stations or pumps and the expanded use of hybrid and other fuel-efficient vehicles. Cal EPA has released its Hydrogen Blueprint that lays out a path for the increased use of hydrogen as a clean fuel. The Hydrogen Highway Initiative, along with the Fuel Cell Partnership and the Fuel Cell Collaboration, has the potential to significantly reduce California's dependence on petroleum.

- *Adopt a goal of increasing the use of nonpetroleum fuels to 20 percent of on-road fuel consumption by 2020 and 30 percent by 2030 based on identified strategies that are achievable and cost-beneficial.* Simply adopting a goal is not enough – the means identified are insufficient to reach the goal. The 2004 Energy Report Update notes that little progress has been made.

  I would like the Energy Commission, in partnership with Cal EPA and other agencies, to further assess transportation fuels. The Legislature has mandated the Energy Commission to: assess the trends in transportation fuels, technologies and infrastructure supply and demand; the outlook for wholesale and retail prices for petroleum and petroleum products; evaluating needed changes to increase conservation of resources and other actions to maintain sufficient, secure and affordable transportation fuel supplies; and recommend strategies to reduce dependence on petroleum fuels. To this end, the Energy Commission should take the lead in crafting a workable long-term plan by March 31, 2006 that will result in the significant reduction of gasoline and diesel use and increase the use of alternative fuels so that the State is working toward a set of realistic, achievable objectives with identifiable and measurable milestones.

- *Coordinate with government fleets to acquire and demonstrate non-petroleum fueled vehicles and advanced technologies with improved efficiency.* Though the state government's vehicle fleet is but a small part of the California's on-road vehicle population, the state government should lead by example. For example, demonstrating a commitment to the reduced petroleum dependence future, a Department of General Services (DGS) purchasing program, run by staff of DGS, Energy Commission and CARB, has added credit for increased fuel economy and lower emissions in new state vehicle purchase decisions, leading to the purchase of 140 new hybrid and alternative fueled vehicles in the last year. Further, DGS intends to increase its purchases of such vehicles as its older vehicles are replaced. The Department of Motor Vehicles has also begun adding hybrid vehicles to its fleet.

- *Develop a public information program to inform consumers of the fuel saving benefits of efficient tires, proper tire inflation, and vehicle maintenance.* Consumer education is a necessary step in reducing California's dependence on petroleum. A public information program should also include important facts about hybrid vehicles, non-petroleum fuels and other alternatives.

Improve petroleum infrastructure permitting

- *Establish a one-stop licensing process for petroleum infrastructure, including refineries, import and storage facilities, and pipelines that would expedite permits to increase supplies of transportation energy products available to California while maintaining environmental quality.* The one-stop licensing process for electricity generation projects has reaped considerable benefits for government, consumers and business. There appears to be a need for improved coordination of petroleum infrastructure permitting by local, regional and state agencies. Information sharing among all permitting agencies, applicants and members of the public is needed to facilitate the timely permitting of petroleum facilities. State involvement and oversight could add value by identifying and promoting best permitting practices, including closer coordination of permitting and California Environmental Quality Act (CEQA) analysis, to enhance the efficiency and consistency of the processes, or by providing an ability to appeal local decisions. The State would also help strengthen California's energy infrastructure by increasing the awareness of, and coordination with, the State's needs and policies and by developing guiding principles for approval of new petroleum facilities. The Energy Commission should continue to investigate, recommend and support means by which the State could help the licensing process and report its findings beginning in the 2005 Energy Report.

Environment

To protect the environment, the state should**:**

- *Require reporting of greenhouse gas emissions as a condition of state licensing of new electric generating facilities.*
- *Account for the cost of greenhouse gas emission reductions in utility resource procurement decisions.*
- *Include climate change mitigation and adaptation strategies in state planning and policy.*
- *Conduct a Mexico Energy Program to fulfill joint declarations developed by the Border Governors' Conference Energy Worktable. The program should address energy and air quality issues on the California-Mexico border and stimulate energy technology exports for California energy companies.*

Because of its growing demand for energy, California must be mindful of the potential adverse effects on the environment that meeting this growth in demand could cause, and thus reduce, minimize or offset such impacts.

Cal EPA and the other state agencies in the Climate Action Team are reviewing many different mechanisms to reduce greenhouse gas emissions, including "Cap and Trade" systems, and will be providing those recommendations for meeting the greenhouse gas emission reduction targets in January 2006.

With a view to the long-term reduction of greenhouse gases from motor vehicles and the environmental protection benefit this can provide, Cal EPA is coordinating the work done by a variety of agencies (Resources, CARB, Energy Commission, CPUC) to implement Executive Order S-3-05. Cal EPA will submit a report on next steps recommendations to achieve greenhouse gas emission reduction targets in January 2006 and it will include recommendations developed as part of the 2005 Energy Report.

Other

I recognize that the Energy Report contains other recommendations that are in concert with the major recommendations contained herein. Also, various state government entities are currently undertaking, or plan to conduct, numerous implementation actions that do not appear as individual policy recommendations. Nonetheless, these recommendations and actions are critical to the formation and implementation of state energy policy, and to the extent that they support my energy policy goals, I expect them to continue.

The Energy Commission should work with all appropriate agencies to develop a collaborative Energy Implementation Road Map that furthers the overall energy plan laid out in my letter to the Legislature and in my goals, priorities and policies contained in this response to the Energy Report, and to regularly report on the State's progress in preparing and following the energy road map. I call on other agencies and departments to participate actively in this broad collaborative, for one agency cannot do it alone. It is important for the Energy Commission to work closely with Cal EPA to fully understand and consider the environmental impacts of the various energy proposals it examines.

I would also ask the Energy Commission, in future Energy Reports, to lead the State in a transition to the use of risk analysis and dynamic simulation methods, among others, for evaluating future energy needs. Such new planning tools are necessary for all energy areas (electricity, natural gas and transportation fuels) to deal with the wide range of energy challenges that face California.

I support the Biomass Collaborative and its potential for contributing to the diversity of energy resources, and have reinvigorated the Interagency Working Group, composed of state agencies with important biomass connections, to develop an integrated and comprehensive state policy on biomass. This policy should include electricity, natural gas and petroleum substitution potential. It should also reflect the substantial potential benefits, such as reducing municipal solid waste, which a wide range of conversion technologies can capture. The Energy Commission's Public Interest Energy Research program should support this initiative.

The electricity crisis of 2000-2001 has heightened the need for energy policy development, both at the state and federal levels. It is necessary for the Energy Commission to increase its capability for policy research to provide current energy information, energy research, bill analysis and other services to the California State Legislature in support of that body's partnership with me in crafting and implementing effective energy policy for California.

Conclusion

The Energy Report is, as I have modified its assessments and recommendations pursuant to Public Resources Code 25307(a-b), a sound basis for energy policy analysis and development, going forward. I expect all state agencies to use it as the common foundation for making their energy related decisions. Other state agencies are also encouraged to use the modified Energy Report as a basis for their energy-related decisions.